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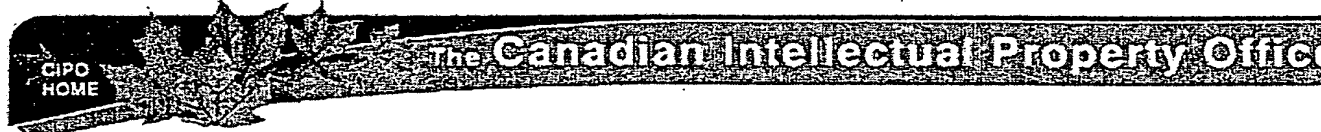
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(12) Patent Application:

(11) CA 2006304

(54) STABILIZED SUCRALOSE COMPLEX

(54) COMPLEXE DE SUCRALOSE STABILISE

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ABSTRACT:

ABSTRACT OF THE DISCLOSURE

The chlorosucrose sweetener known as sucralose is prepared in a thermally stable composition by co-crystallization with a cyclodextrin. The resulting crystalline product may be comminuted to form particles of desired size for use as a sweetener component in place of or in addition to known sweeteners such as sucrose, saccharin and the like, in a variety of foods, comestibles, and oral medications. The preparation of the stabilized sucralose compositions of the present invention constitutes a molecular encapsulation of the sucralose within the cyclodextrin thereby protecting the sucralose from discoloration caused by heat. Numerous applications for this stabilized complex are suggested and disclosed.

CLAIMS: [Show all claims](#)

*** Note: Data on abstracts and claims is shown in the official language in which it was submitted.

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Patent Document Number 2006304 :
STABILIZED SUCRALOSE COMPLEX

COMPLEXE DE SUCRALOSE STABILISE

CLAIMS:

WHAT IS CLAIMED IS:

1. A thermally stabilized sucralose composition comprising a co-crystallized complex of sucralose and at least about 5% by weight of a cyclodextrin.
2. The composition of Claim 1 wherein said cyclodextrin is selected from the group consisting of .alpha.-cyclodextrin, .beta.cyclodextrin, .lambda.-cyclodextrin and mixtures thereof.
3. The composition of Claim 1 wherein part or all of said sucralose is entrapped within said cyclodextrin.
4. The composition of Claim 1 wherein said complex contains at least about 15% by weight of said cyclodextrin.
5. The composition of Claim 1 prepared in particulate form.
6. The composition of Claim 5 wherein said complex possesses a particle size on the order of about 10 microns.
7. A method for the preparation of a thermally stabilized sucralose composition, comprising:
 - a) dissolving a quantity of sucralose and a stoichiometrically sufficient amount of a cyclodextrin in a suitable non-aqueous solvent;
 - b) maintaining the solution formed in step a) for a period of time sufficient to permit full co-crystallization of said sucralose and said cyclodextrin to take place;
 - c) recovering the crystalline reaction product from step b) and drying the same;

and

d) subjecting the material from step d) to comminutopm to form particles therefrom.

8. The method of Claim 7 wherein said cyclodextrin is selected from the group consisting of .alpha.-cyclodextrin, .beta.-cyclodextrin, .lambda.-cyclodextrin and mixtures thereof.

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9. The method of Claim 7 wherein the resulting particles contain at least about 5% by weight of cyclodextrin.

10. The method of Claim 7 wherein the resulting particles contain at least about 15% by weight of cyclodextrin.

11. The method of Claim 7 wherein said non-aqueous solvent is selected from the group consisting of methanol and ethyl acetate.

12. The method of Claim 7 wherein said non-aqueous solvent comprises methanol and ethyl acetate.

13. The method of Claim 7 wherein said solution is maintained for up to about eight hours.

14. The method of Claim 7 wherein said solution contains ethyl acetate and is maintained at a reduced temperature for a period on the order of about eight hours.

15. The method of Claim 7 wherein the particles have an average size of about 10 microns.

16. A solid food containing a sweetener, the sweetener comprising the thermally stabilized composition of Claim 1.

17. An aqueous food containing a sweetener, the sweetener comprising the thermally stabilized composition of Claim 1.

18. A liquid beverage containing a sweetener, the sweetener comprising the thermally stabilized composition of Claim 1.

19. A chewing gum composition containing a sweetener, the sweetener comprising the thermally stabilized composition of Claim 1.

20. A mouth wash containing a sweetener, the sweetener comprising the thermally stabilized composition of Claim 1.

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21. A cough drop containing a sweetener, the sweetener comprising the stabilized composition of Claim 1.

22. A confectionary preparation containing a sweetener, the sweetener comprising the thermally stabilized composition of Claim 1.

23. The confectionary preparation of Claim 22 selected from the group consisting hard candy, soft candy, chocolate and cookies.
24. A breath mint containing a sweetener, the sweetener comprising the thermally stabilized composition of Claim 1.
25. An orally ingestible pharmaceutical preparation containing a sweetener, the sweetener comprising the stabilized composition of Claim 1.

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